WE CLAIM:

1. An isolated nonapeptide of formula

SLLMWITQX

(SEQ ID NO: 10) wherein X is any amino acid but cysteine, wherein said nonapeptide binds to an HLA molecule and provokes lysis by cytolytic T cells.

2. The isolated nonapeptide of claim1, wherein X is an amino acid having a non-polar side chain.

3. The isolated nonapeptide of claim 2, wherein said amino acid is Ala, Val, Leu, Ile, Pro, Phe, Met, Trp or Gly.

4. The isolated nonapeptide of claim 1, wherein said amino acid is Ala, Val, Ile or Leu.

5. The isolated complex of claim 18, wherein said complex is a tetramer.

6. The isolated tetramer of claim 3, wherein X in SEQ ID NO: 10 is A, V, I or L.

7. Composition useful in provoking a cytolytic T cell response comprising the isolated nonapeptide of claim 1, and an adjuvant.

8. An isolated nucleic acid molecule consisting of a nucleotide sequence which encodes the nonapeptide of claim 1.

9. The isolated nucleic acid molecule of claim 1, wherein said nonapeptide consists of the amino acid sequence set forth at SEQ ID NO. 6, 7, 8, or 12.

10. Expression vector comprising a plurality of nucleotide sequences which encode peptides which bind to MHC molecules, wherein at least one of said peptides is the peptide of claim 1.

11. The expression vector of claim 10, wherein said peptide consists of the amino acid sequence of SEQ ID NO: 6, 7, 8 or 12.

12. Recombinant cell transformed or transfected with the isolated nucleic acid molecule of claim 8.

13. Recombinant cell transformed or transfected with the expression vector of claim 10.

14. Method for determining if a cell presents an HLA-A2 molecule on its surface comprising contacting a sample containing said cell with the peptide of claim 1, and determining binding therebetween, said binding being indicative of HLA-A2 on the surface of said cell.

15. The composition of claim 7, further comprising at least one additional peptide.

16. Isolated polytope molecule, at least a portion of which comprises the amino acid sequence of claim 1.

17. A method for determining if a cytolytic T cell specific to complexes of an HLA-A2 molecule and a peptide is present in a sample, comprising admixing said sample with an HLA-A2 molecule and the nonapeptide of claim 1, and determining interaction between said cytolytic T cell, and complexes of HLA-A2 molecule and said peptide to determine specificity of said cytolytic T cell.

18. An isolated complex useful in isolating a cytolytic T cell, comprising a first and second binding partner which are specific to each other, wherein said second binding partner is

bound to a plurality of complexes of an HLA-A2 molecule, a ß2 microglobulin molecule, and the nonapeptide of claim 1.

19. The isolated complex of claim 18, wherein said peptide is the peptide of SEQ ID NO: 6, 7, 8 or 12.

20. The isolated complex of claim 18, further comprising a label.

21. The isolated complex of claim 18, wherein said first binding partner is avidin and said second binding partner is biotin.

22. The isolated complex of claim 21, comprising complexes of MHC molecule, β2 microglobulin and peptide.

23. A method for identifying or isolating cytolytic T cells in a sample, comprising admixing said sample with the complex of claim 18, and identifying or isolating cytolytic T cells which bind thereto.

24. A method for monitoring status of a tumor, comprising contacting a sample taken from a patient with a tumor with the isolated complex of claim 18 to determine cytolytic T cells in said sample, and comparing a value obtained to a previously determined value to determine status of said tumor.

25. An isolated decapeptide of formula:

SLLMWITQXX

(SEQ ID NO:18), wherein, the first X is cysteine or alanine, and the second X is any amino acid.

26. The isolated decapeptide of claim 25, wherein the second X is Phe, Ile, Val or Leu.

27. The isolated decapeptide of claim 25, wherein the first X is cysteine and the second X is Phe, Ile, Val or Leu.

28. The isolated decapeptide of claim 25, wherein the first X is alanine and the second X is Phe, Ile, Val or Leu.

29. The isolated decapeptide of claim 27, wherein the second X is Phe (SEQ. ID NO: 11), or Ile (SEQ ID NO: 14).

30. Composition useful in provoking a cytolytic T cell response comprising the isolated decapeptide of claim 25, and an adjuvant.

31. An isolated nucleic acid molecule consisting of a nucleotide sequence which encodes the isolated decapeptide claim 25.

32. The isolated nucleic acid molecule of claim 31, wherein said decapeptide consists of the amino acid sequence set forth at SEQ. ID NO: 11, 13, 14, 15, 16 or 17.

33. Expression vector comprising a plurality of nucleotide sequences which encode peptides which bind to MHC molecules, wherein at least one of said peptides is the peptide of claim 25.

34. The expression vector of claim 33, wherein said peptide is the peptide of SEQ. ID NO: 11, 13, 14, 15, 16 or 17.

35. Recombinant cell transformed or transfected with the isolated nucleic acid molecule of claim 31.

36. Recombinant cell transformed or transfected with the expression vector of claim 33.

37. A method for determining if a cell presents an HLA-A2 molecule on its surface comprising contacting a sample containing said cell with the decapeptide of claim 25, and determining binding therebetween, said binding being indicative of HLA-A2 on the surface of said cell.

38. The composition of claim 30, further comprising at least one additional peptide.

39. Isolated polytope molecule, at least a portion of which comprises the amino acid sequence of claim 25.

40. A method for determining if a cytolytic T cell specific to complexes of an HLA-A2 molecule and a peptide is present in a sample, comprising admixing said sample with an HLA-A2 molecule and the decapeptide of claim 25 and determining interaction between said cytolytic T cell, and complexes of HLA-A2 molecule and said peptide to determine specificity of said cytolytic T cell.

41. An isolated complex useful in isolating a cytolytic T cell, comprising a first and second binding partner which are specific to each other, wherein said second binding partner is bound to complexes if an HLA-A2 molecule, a β2 microglobulin molecule, and the decapeptide of claim 25.

42. The isolated complex of claim 41, wherein said complex is a tetramer.

43. The isolated complex of claim 41, wherein said decapeptide has the amino acid sequence of SEQ. ID NO: 11, 13, 14, 15, 16 or 17.

44. The isolated complex of claim 41, further comprising a label.

45. The isolated complex of claim 41, wherein said first binding partner is avidin and said second binding partner is biotin.

46. The isolated complex of claim 45, comprising complexes of MHC molecule, β2 microglobulin and decapeptide.

47. A method for identifying or isolating cytolytic T cells in a sample, comprising admixing said sample with the complex of claim 41, and identifying or isolating cytolytic T cells which bind thereto.

48. A method for monitoring status of a tumor, comprising contacting a sample taken from a patient with a tumor with the isolated complex of claim 41 to determine cytolytic T cells in said sample, and comparing a value obtained to a previously determined value to determine status of said tumor.